CLAIMS

What is claimed is:

1. A method for identifying a broadcast source of content comprising:

recording an audio sample;

recording a time at which the audio sample was recorded;

identifying characteristics of the audio sample and an estimated time offset of the audio sample, the estimated time offset defining from a time difference between a start time of the audio sample and the time at which the audio sample was recorded;

comparing the characteristics and the estimated time offset of the audio sample with characteristics and time offsets of samples taken from broadcast stations and taken at approximately the time at which the audio sample was recorded; and

based on the comparison, identifying a broadcast station from which the audio sample was broadcast.

2. The method of claim 1, wherein identifying the broadcast station from which the audio sample was broadcast comprises:

identifying a sample from the samples taken from the broadcast stations that has characteristics which most closely match the characteristics of the audio sample; and

selecting the broadcast station from which the identified sample was taken to be the broadcast station from which the audio sample was broadcast.

3. The method of claim 2, wherein the step of comparing comprises comparing characteristics and the estimated time offset of the audio sample with the characteristics and the time offsets of each sample taken from the broadcast stations and taken at approximately the time at which the audio sample was recorded.

4. The method of claim 1, wherein upon identifying a sample from the samples taken from the broadcast stations that has characteristics which substantially match the characteristics of the audio sample, the step of identifying comprises selecting the broadcast station from which the identified sample was taken to be the broadcast station from which the audio sample was broadcast.

5. The method of claim 1, further comprising comparing an identify of the audio sample with identities of the samples taken from the broadcast stations.

6. The method of claim 1, further comprising reporting information relating to the broadcast station to a user who recorded the audio sample.

7. The method of claim 6, wherein the broadcast information includes an advertisement.

8. The method of claim 1, further comprising:

continually recording samples from each of the broadcast stations;

recording a time at which each of the samples was recorded;

identifying characteristics of each of the samples; and

identifying estimated time offsets of each of the samples.

9. The method of claim 1, further comprising:

recording the audio sample over a transition between audio programs on the same broadcast station;

comparing the transition within the audio sample with transitions within the samples taken from the broadcast stations; and

identifying a content alignment between the transition within the audio sample and at least one transition within a sample taken from the broadcast stations.

10. A method for identifying a broadcast source of content comprising:

comparing an identity of an audio sample with identities of broadcast audio samples taken from broadcast channels being monitored;

comparing a time offset of the audio sample with time offsets of the broadcast audio samples, the time offsets defining an elapsed time between when a sample was taken and when the time offset comparison occurs plus a relative time offset, the relative time offset defining a time difference between a start time of a sample and a time when a sample was recorded; and

based on substantially matching identities and substantially matching time offsets, identifying a broadcast channel from which the audio sample was recorded.

11. The method of claim 10, further comprising:

identifying variations in the audio sample, the variations including non-music material superimposed upon the audio sample; and

comparing the variations in the audio sample with variations in the broadcast audio samples.

12. The method of claim 10, further comprising:

identifying an identity change within the audio sample; and

comparing a first identify of the audio sample with identities of the broadcast audio samples, and comparing a second identity of the audio sample with identities of the broadcast audio samples.

13. The method of claim 10, further comprising:

determining a stretch factor of the audio sample, the stretch factor defining a difference between a speed at which the audio sample was broadcast and a speed of an original playback of the audio sample; and

comparing the stretch factor of the audio sample with stretch factors of the broadcast audio samples.

14. The method of claim 10, further comprising collecting broadcast audio samples from the broadcast channels at time intervals such that at least one audio sample is taken per audio program for each broadcast channel.

15. The method of claim 10, further comprising reporting the broadcast channel to a user.

16. A monitoring station comprising:

broadcast channel samplers for sampling audio from respective broadcast stations;

an audio recognition engine for determining characteristics of the audio sampled from the respective broadcast stations, and for determining an estimated time offset of the audio between a beginning of an original recording from which the audio sample was taken and a time at which the audio sample was taken; and

a processor for (i) receiving a user audio sample, (ii) comparing the characteristics and the estimated time offset of the audio sampled from the respective broadcast stations and taken at approximately the time at which the user audio sample was recorded with characteristics and a time offset of the user audio sample, and (iii) based on the comparisons, identifying a broadcast station from which the user audio sample was broadcast.

17. The monitoring station of claim 16, wherein the broadcast channel samplers sample the audio from the respective broadcast stations on a continual basis.

18. The monitoring station of claim 16, wherein the broadcast channel samplers sample the audio from the respective broadcast stations at time intervals such that at least one audio sample is taken per audio program for each respective broadcast station.

19. The monitoring station of claim 16, further comprising memory for storing the characteristics of the audio sampled from the respective broadcast stations and the estimated time offset of the audio sampled from the respective broadcast stations.

20. The monitoring station of claim 19, wherein after a predetermined amount of time, the monitoring station writes over stored information of the audio sampled from the respective broadcast stations to refresh the information so as to coordinate stored information with audio samples currently being broadcast.

21. The monitoring station of claim 16, wherein the processor receives a recording of the user audio sample.

22. The monitoring station of claim 16, wherein the processor receives the characteristics of the user audio sample.

23. The monitoring station of claim 22, wherein the processor is also operable to compare an identity of the user audio sample with identities of the audio sampled from the respective broadcast stations.

24. A method for identifying a broadcast source of content comprising:

recording an audio sample;

recording a time at which the audio sample was recorded;

identifying characteristics of the audio sample and an estimated time offset of the audio sample, the estimated time offset defining a time difference between a start time of the audio sample and the time at which the audio sample was recorded;

recording audio samples from each of a plurality of broadcast stations;

recording a time at which each of the audio samples from each of the plurality of broadcast stations was sampled;

identifying characteristics and estimated time offsets of the audio samples from each of the plurality of broadcast stations;

comparing the characteristics and the estimated time offset of the audio sample with the characteristics and the estimated time offsets of the audio samples taken from the plurality of broadcast stations and taken at approximately the time at which the audio sample was recorded; and

based on the comparison, identifying a broadcast station from which the audio sample was broadcast.